

Report on Baylys Beach storm events

Meeting: Kaipara District Council
Date of meeting: 24 November 2021
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Bernard Peterson, Maintenance Lead
Katy Simon, Climate Change Advisor
David Usmar, Infrastructure Officer

Purpose | Ngā whāinga

To update Council on the impact of the number of storm events over September and October at Baylys Beach.

Executive summary | Whakarāpopototanga

Weather events in September and October saw erosion and damage to Baylys Beach, with vehicle access to the beach completely cut off. Repair works have been undertaken to restore vehicle access to the beach and make footpath access safe.

This report is to update Council on the various plans underway in various departments relating to Baylys Beach and to give Council confidence that staff are responding to the community's needs, provided in budgets.

Baylys Beach has been identified as an area exposed to coastal hazards, and Council will need to consider options in adaptive and resilient management and planning moving forward.

Recommendation | Ngā tūtohunga

That the Kaipara District Council:

- a) Notes the Report on Baylys Beach Storm Events.

Context | Horopaki

There have been a number of storm events that have caused damage to Baylys Beach and Council have asked to be updated on these and the measures that Council has put in place.

Baylys Beach has in the past had a number of storms that have affected both Council and private property. Most recently, one in mid-September and again in early October. In October, an extreme rain event in Baylys Beach, followed by immediate periods of further wet weather, saw significant damage wrought on the beach access at the bottom of the Baylys Beach catchment. This included major erosion to the stream and the resulting exposure of several retaining structures. The footpath was also damaged, as was the road leading to the beach access.

Images show damage at Baylys Beach due to heavy rain in October



KDC road access to the beach:

This is the key area our roading team maintain. Ventia, our contractors, inspect the beach access on their monthly inspection rounds ensuring it is accessible for 2-wheel drive vehicles. KDC has recently built a walkway adjacent to the land and this is checked to ensure it is solid.

A storm event occurred mid-September and Council graded the beach access at this time to restore access as per the NRC consent. This is an exposed natural, west coast environment and every time we have a significant westerly and high tide, washing out occurs.

On the 8th October engineers assessed the site and their initial report gave our maintenance team some immediate remedial options to implement. This includes installing rock spalls at the entrance, along the edge of the stream alignment. Contractors will then backfill the area with compacted limerock. Limerock is cohesive and will provide better resistance to any future weather impacts in the short to medium term.

For a short period the area was not safe for beach access and was closed.

These works were carried out under 'Section 330 - Emergency works and power to take preventive or remedial action, of the Resource Management Act 1991' under delegated authority of Kaipara District Council.

Images show repairs being undertaken at Bayllys Beach after October heavy rain event



Stormwater flows:

Stormwater infrastructure renewal budgets are not available until 2024. However, a failure of the piped stormwater network is not considered to be a significant factor in the events that lead to the erosion seen at the beach entrance in October. A flow attenuation project has been in the planning phase for some years and due to the complex nature of the causes behind erosion issues and the costs involved in large hard structure stormwater solutions, this has settled on a wetland reinstallation project in Chases gorge. This is considered a project with multiple community benefits but not an entire solution to erosion issues.

Private Land:

In 2014 a bag wall was erected to stabilise the bank and prevent further bank slippages that occurred (NRC Resource Consent No. AUT.008964.01.03 & AUT.008964.02.03).

This is private land and Council have agreed that Kaipara District Council would maintain the trimming of loose plastics from the sand bags as they became exposed.

Council have been advised by the community that further bags need to be installed at the seaward end as its most impacted by sea and stream surges. The land is private land.

Discussion | Ngā kōrerorero

It is not Council's role to 'solve' erosion to private land in a coastal environment. Council needs to maintain public infrastructure services (as much as reasonable) and mitigate and manage the risk to the erosion through appropriate planning and consents. Most of Council's response to storm events will be re-grading the road to maintain access. Further action around the sandbag wall is not budgeted for by Council.

KDC road access to the Beach:

The Baylys Beach entrance via Sea View Road is Council's only maintained 2-wheel drive access onto Ripiro Beach and follows road reserve through to the approximate high tide mark. This entrance provides a safe passage for vehicles to access the greater Ripiro Beach for recreational purposes, emergency response, surf lifesaving and access for some residents to their dwellings and baches.

Baylys Beach is a high-energy environment and subject to the impacts of storm and rain events originating mostly from the Tasman Sea. 'Washing out' of the entrance is not uncommon during a storm event, with the entrance requiring on average six grades (sourced from claim data since 2012) per calendar year at an average cost of \$450.00 (total including subsidy) per grade under contract dayworks.

Routine grading currently occurs under an existing consent (CON20051386401) issued to Kaipara District Council by the Northland Regional Council in 2005. This consent had a 20-year term expiring in 2025. This consent allows Council's contractors to open up the stream mouths at four beach access locations including Baylys, by realigning the streams to their typical outflow route, ensuring the flow is not short-circuited and that blockages are removed through to the tidal mark. In undertaking the described activity, sand is recovered back up into the entranceway to tie into the end of Sea View Road.

The localised weather event in early October, caused more significant damages to the beach entrance than has been seen in recent years, lowering the overall level of the entranceway up to 1m in places. The immediate transition point from the end of Sea View Road onto the beach would not be able to be recovered through grading activity alone. Upon urgent investigation by WSP, on behalf of Council an immediate short to medium term solution was provided, to rock spall the southern stream alignment and backfill with compacted granular fill. Lime rock has been chosen for use as backfill material due to having a higher cohesion value and being a naturally sourced

material found within the west coast environment. Due to the urgency to reopen the access, works were undertaken under 'Section 330 – Emergency works and power to take preventive or remedial action, of the Resource Management Act 1991.' The recovery of sand as outlined, per standard routine grading practises can then be carried out upon completion to allow the reopening of the entrance.

Stormwater Flows:

In the longer term, there is also a stormwater project planned for Baylys Beach, programmed for January 2022. The work is funded under the current Long Term Plan and incorporates enhancing the stream and creating approximately half a hectare of wetland in Chases Gorge. Planting for the wetland is planned to take place in Autumn 2022.

The aim of the project is to reduce and slow the amount of surface water flowing down through the catchment area, and by doing so, minimise the roadside discharge of stormwater. It does not seek to protect the road corridor, beach access, or potential unstable land downstream from Chases Terrace.

The new wetland is located on private land and a covenant agreement is required to allow for planting and maintaining the wetland area. Kaipara District Council is currently negotiating with the landowner to begin the work.

Private Land:

After the October event a WSP Geotech Engineer and KDC Building Compliance officer examined the houses within the flood affected area. They considered that the homes in the vicinity of the beach did not suffer damage of any significance and therefore they would not be considered as a dangerous building as defined under section 121 of the building act. They had property owners approach them and recommended they talk to their insurers but that the buildings did not suffer any damage nor were they in any immediate danger. Most houses are holiday homes so were unoccupied and some of their owners reside outside Northland.

The bridge which provides access to most of the properties near the affected area was considered safe to use. A letter was sent out to those homeowners accessing the bridge asking them to get an engineer to check the bridge as it is private property, and further storms could cause more damage.

Climate Change:

A decision on any significant engineering projects for longer term erosion management will be made through Council's community adaptation planning / adaptive pathways work. The first step in this work is to decide the coastal community pilot location. Baylys Beach has been identified as an area exposed to coastal hazards and is a possible pilot location.

If Council approves either Baylys Beach or West Coast/Ripiro Area as the preferred pilot, long term erosion management decisions will be made within the next two-three years. If it is not chosen as a pilot, then the decisions will be reached at a future date when the Baylys Beach community participates in adaptive pathways planning. This would occur within no more than 10 years. NTA Strategy and Planning would be a key stakeholder in the planning process.

If more urgent management action is triggered by a future major event before Baylys Beach participates in adaptive pathways planning, then at a minimum, Council would need to test management action options against climate scenarios to ensure the responses are adaptive and resilient and do not lock the community into future overly costly or unsustainable outcomes

Policy and planning implications

Providing for a response to Climate change is part of the Council planning work being undertaken.

Financial implications

There are no budget implications at present. All works are carried out under specific budgets provided in the LTP.

Risks and mitigations

There is a large risk that the frequency of these storms will increase, and repetitive damage will occur.

Significance and engagement | Hirahira me ngā whakapāpā

The decisions or matters of this report are considered to have a low degree of significance in accordance with Council's Significance and Engagement Policy. No feedback is required, and the public will be informed of Council's decision via the agenda and minutes publication of this meeting, on the website and through other channels if appropriate.

The Baylys Beach community have been kept informed through social media, newspaper articles or letter drops.

Next steps | E whaiake nei

There are community conversations ongoing about plans relating to Baylys Beach (Attachment A)

Attachments | Ngā tapiritanga

	Title
A	Baylys Beach Project List 27 October 2021